WATER VENDING APPARATUS

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] The present application is a Continuation Application of U.S. patent application Ser. No. 15/095,696, filed Apr. 11, 2016 and entitled Water Vending Apparatus, now U.S. Pat. No. 10,155,174, issued Dec. 18, 2018 (Attorney Docket No. R77), which itself is a Continuation Application of U.S. patent application Ser. No. 13/969,200, filed Aug. 16, 2013 and entitled Water Vending Apparatus, now U.S. Pat. No. 9,309,104, issued Apr. 12, 2016 (Attorney Docket No. L03), which is a Continuation Application of U.S. patent application Ser. No. 12/541,712, filed Aug. 14, 2009 and entitled Water Vending Apparatus, now U.S. Pat. No. 8,511,105, issued Aug. 20, 2013 (Attorney Docket No. H61) which claims priority from U.S. Provisional Patent Application Ser. No. 61/089,295, filed Aug. 15, 2008 and entitled Water Vending Apparatus Having Water Vapor Distillation Purification System (Attorney Docket No. G38), each of which is hereby incorporated herein by reference in its entirety.

[0002] U.S. Pat. No. 8,511,105 is also a Continuation In Part Application of U.S. patent application Ser. No. 12/135,035, filed Jun. 6, 2008 and entitled Water Vapor Distillation Apparatus, Method and System, now U.S. Pat. No. 8,069,676, issued Dec. 6, 2011 (Attorney Docket No. G01), which claims priority from U.S. Provisional Patent Application Ser. No. 60/933,525, filed Jun. 7, 2007 and entitled Water Vapor Distillation Apparatus, Method and System (Attorney Docket No. DEKA-014XX), and is also a Continuation-In-Part of patent application Ser. No. 11/480,294 filed Jun. 30, 2006 and entitled Pressurized Vapor Cycle Liquid Distillation, now U.S. Pat. No. 8,366,883, issued Feb. 5, 2013 (Attorney Docket No. E41), which is a Continuation-In-Part of patent application Ser. No. 10/713,617 filed Nov. 13, 2003 and entitled Pressurized Vapor Cycle Liquid Distillation, now U.S. Pat. No. 7,597,784, issued Oct. 6, 2009 (Attorney Docket No. D91), which claims priority from U.S. Provisional Patent Application Ser. No. 60/518,782 entitled Locally Powered Water Distillation filed on Nov. 10, 2003 (Attorney Docket No. E08); U.S. Provisional Patent Application Ser. No. 60/490,615 entitled System and Methods for Distributed Utilities filed on Jul. 28, 2003 (Attorney Docket No. D90); and U.S. Provisional Patent Application Ser. No. 60/425,820 entitled Pressurized Vapor Cycle filed on Nov. 13, 2002 (Attorney Docket No. C48), each of which is hereby incorporated herein by reference in its entirety.

[0003] U.S. Pat. No. 8,069,676 is also a Continuation-In-Part of patent application Ser. No. 11/168,239 filed Jun. 28, 2005 and entitled Fluid Transfer Using Devices and Rotatable Housings, now U.S. Pat. No. 7,488,158, issued Feb. 10, 2009 (Attorney Docket No. E28), which is a Continuation-In-Part of patent application Ser. No. 10/720,802 filed Nov. 24, 2003 and entitled System and Method of Fluid Transfer Using Devices with Rotatable Housing which is now abandoned (Attorney Docket No. E09), which is a Continuation-In-Part of patent application Ser. No. 10/713,617 filed Nov. 13, 2003 and entitled Pressurized Vapor Cycle Liquid Distillation, now U.S. Pat. No. 7,597,784, issued Oct. 6, 2009 (Attorney Docket No. D91), which claims priority from U.S. Provisional Patent Application Ser. No. 60/518,782 entitled Locally Powered Water Distillation filed on Nov. 10, 2003 (Attorney Docket No. E08); U.S. Provisional Patent Application Ser. No. 60/490,615 entitled System and Methods for Distributed Utilities filed on Jul. 28, 2003 (Attorney Docket No. D90); and U.S. Provisional Patent Application Ser. No. 60/425,820 entitled Pressurized Vapor Cycle filed on Nov. 13, 2002 (Attorney Docket No. C48), all of which are hereby incorporated by reference in their entireties.

[0004] U.S. Pat. No. 8,069,676 is also a Continuation-In-Part of patent application Ser. No. 10/713,591 filed Nov. 13, 2003 and entitled Liquid Ring Pumps with Hermetically Sealed Motor Rotors, now U.S. Pat. No. 7,465,375 issued Dec. 16, 2008 (Attorney Docket No. E06) which claims priority from U.S. Provisional Patent Application Ser. No. 60/490,615 entitled System and Methods for Distributed Utilities filed on Jul. 28, 2003 (Attorney Docket No. D90); and U.S. Provisional Patent Application Ser. No. 60/425,820 entitled Pressurized Vapor Cycle filed on Nov. 13, 2002 (Attorney Docket No. C48); and U.S. Provisional Patent Application Ser. No. 60/518,782, filed Nov. 10, 2003 entitled Locally Powered Water Distillation System (Attorney Docket No. E08), each of which is hereby incorporated by reference in its entirety.

[0005] U.S. Pat. No. 8,069,676 is also a Continuation-In-Part of patent application Ser. No. 10/713,617 filed Nov. 13, 2003 and entitled Pressurized Vapor Cycle Liquid Distillation, now U.S. Pat. No. 7,597,784, issued Oct. 6, 2009 (Attorney Docket No. D91), which claims priority from U.S. Provisional Patent Application Ser. No. 60/518,782 entitled Locally Powered Water Distillation filed on Nov. 10, 2003 (Attorney Docket No. E08); U.S. Provisional Patent Application Ser. No. 60/490,615 entitled System and Methods for Distributed Utilities filed on Jul. 28, 2003 (Attorney Docket No. D90); and U.S. Provisional Patent Application Ser. No. 60/425,820 entitled Pressurized Vapor Cycle filed on Nov. 13, 2002 (Attorney Docket No. C48); each of which is hereby incorporated by reference in its entirety.

TECHNICAL FIELD

[0006] The present invention relates to vending purified water and more particularly, to a water vending apparatus.

BACKGROUND INFORMATION

[0007] There is a large, poorly satisfied global need for readily available, adequate tasting, safe, affordable and convenient drinking water. The ability to serve this global need is limited by many factors, one being the economics of the centralized bottling model. Traditionally, less affluent consumers are not well served by branded water as price increases with respect to water quality and trustworthiness. Distributed purification alternatives, such as chemical treatment and carbon filtration, have limited impact on water safety and have significant limitations for consumers, retailers, bottlers, and brand owners.

[0008] Water kiosks, i.e., locations, providing containers of water which are typically filled at an off-site location and transported to the kiosk, are prevalent in cities with poor municipal water supplies, and are an inefficient and expensive solution to providing safe drinking water to the masses. Kiosks typically sell water by the jug, and the cost of transport, bottling, and distribution are all passed to the consumer. Environmentally, transport of kiosk-related water jugs increases pollution and traffic congestion.

[0009] Additionally, the volume of water capable of being stored at a kiosk in jug-form is finite. In locations such as Mexico City, for example, reducing the number of jugs